Navy Announces FY16 CNO Environmental Award Winners

Efforts Range from a Recycled Runway to Food Waste Diversion

VICE ADMIRAL PHIL Cullom, then-deputy chief of naval operations for fleet readiness and logistics (N4), announced 30 winners of the fiscal year (FY) 2016 Chief of Naval Operations (CNO) Environmental Awards competition in a naval message in March 2017.

The CNO Environmental Awards are an annual recognition program that highlights the accomplishments of nominated ships, installations and individuals for exceptional achievements in environmental stewardship.

The competition categories for the FY 2016 competition included natural resources conservation (large installation), environmental quality (industrial and overseas), sustainability (non-industrial and individual/team), environmental restoration (installation), cultural resources management (small installation and individual/team), environmental excellence in weapon system acquisition, environmental planning and afloat (includes five competitive sub-categories). (Note: No nominations were received in the environmental excellence in weapon system acquisition category.)

Subject matter experts from the Navy and other non-governmental organizations judged the individual nominations on accomplishments during the 1 October 2014 through 30 September 2016 eligibility period.

In the next tier of competition, the 30 winners will compete along with Marine Corps nominees for the Secretary of the Navy Environmental Awards.

Accomplishments of the winners are highlighted here.

Natural Resources

This award recognizes efforts to promote the conservation of natural resources, including the identification, protection and restoration of biological resources and habitats; the sound long-term management and use of the land and its resources; and the promotion of a conservation ethic.

Large Installation

Naval Air Station Fallon, Nevada

Naval Air Station (NAS) Fallon has won numerous environmental awards in the past, including five CNO Environmental Awards for Natural Resource Conservation. Accomplishments during the FY 2016 award period include three water catchment projects designed to provide access to water for the base's wildlife in this drought-prone area and the breeching of a levee to

Volunteers from the Navy, Nevada Department of Wildlife and Nevada Bighorns Unlimited added rock and cement to expand a water collection site at NAS Fallon. Bighorn sheep and pronghorn antelope use the water in this dry area.

Anna Keyzers

eliminate habitat for non-native species and prevent the spread of an amphibian disease. Also, working with the Naval Facilities Engineering Command (NAVFAC) Southwest's attorneys, the public works team determined that a private contractor had exceeded the terms of its easement by building a road through a sensitive wetlands area. The road was removed and the area restored to its natural state. All of these projects were collaborations with other local governmental and non-governmental organizations.

Naval Air Station Whidbey Island, Oak Harbor, Washington

NAS Whidbey Island is home to a sizable population of the Washington ground squirrel, a species that has been considered for listing as federally threatened or endangered. Due in large part to the base's monitoring and habitat enhancement efforts, in partnership with state and local partners, the U.S. Fish and Wildlife determined in 2016 that the listing of the Washington ground squirrel as federally threatened or endangered is not warranted. Other accomplishments included the relocation of five bald eagles as part of the Bird Aircraft Strike Hazard program, the planting of native Gerry oak trees and a partnership project with local Native American tribes to restore salmon habitat in the Crescent Creek area.

TOP: Washington ground squirrel with radio collar.
BOTTOM: Planting forbs for habitat restoration.

The High Water Mark initiative is a cooperative effort to build local awareness of flood risk by posting signs reminding residents of the Superstorm Sandy high water mark. Shown here are local and federal officials along with Captain Jay Steingold of NWS Earle.

Naval Weapons Station Earle, Colts Neck, New Jersey

Naval Weapons Station (NWS) Earle suffered almost $50 million in damage during Superstorm Sandy, which raised awareness of the increasing need to adapt to climate change and sea level rise (CC/SLR). Therefore, NWS Earle embarked on a holistic shoreline management and resiliency program with multiple stakeholders and funding sources to address immediate environmental needs (increasing stormwater capacity to eliminate residential flooding) and the long-term challenges posed by CC/SLR. Rather than simply building a levee, efforts were focused on natural solutions including the restoration of marshes and the introduction of oyster beds, which minimize flooding in surrounding areas and improve fish habitat.

Environmental Quality

These awards recognize efforts to ensure mission accomplishment and protection of human health in the areas of environmental planning, waste management, and environmental law and regulation compliance. Meeting or exceeding all environmental requirements not only enhances the protection of our environmental assets, but also sustains the Department of Defense's (DoD) ability to effectively train and maintain readiness.

Industrial Installation

Fleet Readiness Center Southwest, San Diego, California

In FY 2016, Fleet Readiness Center Southwest (FRCSW) achieved 100 percent environmental regulatory compliance for all media programs and met or exceeded all

The Energy Management Control systems used in FRCSW industrial buildings reduce energy consumption and greenhouse gas generation. For example, the control system turns heating on and off for day and evening usage.

applicable Executive Order objectives and targets. One of FRCSW's most impressive achievements was the completion of a full upgrade of the Navy Primary Standards Laboratory including a top-of-the-line high efficiency chiller and compressed air system, and a light-emitting diode (LED) lighting retrofit. This has resulted in a utilities savings of $100,000 and a 38 percent reduction in energy intensity in just one year.

Naval Air Station Jacksonville, Florida

In June 2016, NAS Jacksonville completed one of its largest construction projects in decades: the complete reconstruction of the main runway of Towers Field. This project recycled 100 percent of the asphalt and concrete debris from the construction, resulting in over $7 million savings in landfill disposal costs while at the same time reducing the need for raw materials. In FY 2016, the environmental team also recycled over 300 tons of materials through a qualified recycling program and converted 4,000 gallons of vegetable oil to biodiesel. Additionally, over 3,057 tons of metal were recycled, resulting in significant monetary credits.

A P-3C Orion takes off from the NAS Jacksonville runway in December 2015. The aircraft was the first one to take off from the newly renovated airfield.
Victor Pitts

Naval Base Kitsap, Bremerton, Washington

In the environmental planning area, Naval Base Kitsap (NBK) initiated 20 consultations in FY 2015/16 under the Endangered Species Act and 73 under the National Historic Preservation Act. Additionally, 133 letters were sent to tribes, either initiating consultations, or documenting progress made. Approximately 1,400 projects were reviewed for potential impacts to the environment. One of several of NBK's waste reduction efforts included the installation of hazardous material lockers for collection of excess hazardous materials from submarines, ships and other vessels. And to enhance environmental compliance, several projects were completed to enhance the strength and security of NBK's 286 above- and underground storage tanks, decreasing the likelihood of releasing fuel to the environment.

A new 10,000-gallon, double-walled fiberglass underground storage tank is being installed at NBK. The tank replaced a 38-year old single-walled tank at NBK that had reached the end of its life expectancy.
Thomas Harvey

Overseas

Camp Lemonnier Djibouti

The work and efforts of the Camp Lemmonier Djibouti (CLDJ) environmental division has saved about $900,000, decreased waste by 1.5 million plastic water bottles and reduced Styrofoam container usage by 50 percent between 2014 and 2016. In an effort to reduce hazardous material disposal costs, CLDJ blended off-specification jet fuel (slated for disposal) with diesel to power the camp's incinerators, resulting in a yearly savings of more than $92,000. Equipment was also purchased for in-house sampling of soil and water, thereby avoiding costly charges for environmental services.

CLDJ drinking water stations encouraged personnel to refill water bottles rather than use disposable bottles. The annual plastic bottle supply saving was over 1.5 million bottles.

Naval Air Facility Atsugi, Japan

In 2015, Naval Air Facility (NAF) Atsugi became the first overseas installation to implement environmental readiness manuals to each of its 13 tenant commands. In tailoring volumes of environmental code, plans and manuals to individual activities, each tenant command has a consolidated set of environmental regulations designed to apply to their specific activities. NAF Atsugi also completed a bee relocation project in partnership

NAF Atsugi's environmental team partnered with local beekeepers to relocate nuisance hives off base. This partnership greatly benefits local farmers while progressing DoD and Government of Japan initiatives.

Kaoru Saito

with the local government and community. This project, recognized with a CNO award in FY 2015, relocated two hives from the base to a nearby farm, saving an estimated 100,000 honeybees.

Naval Station Rota, Spain

In FY 2016, the Qualified Recycling Program at Naval Station (NAVSTA) Rota executed 15 direct sales agreements of recycled materials, saving over $146,000 compared to Defense Logistics Agency contracting. During this period, NAVSTA Rota recycled 1,080 tons of

Community outreach efforts and new plastic and metal recycling bins have been instrumental in the success of the NAVSTA Rota recycling program.

Tim Uplinger

material that otherwise would have gone to landfills, the most ever recycled at the station. This translated to a one-year improvement in the landfill diversion rate of 21 percent (from 48 percent in FY 2015 to 69 percent in FY 2016). This increase can be attributed to the base's improved community outreach and education efforts.

Sustainability

These awards recognize efforts to prevent or eliminate pollution at the source, including practices that increase efficiency and sustainability in the use of raw materials, energy, water or other resources. Sustainable practices ensure that DoD protects valuable resources that are critical to mission success.

Non-Industrial Installation

Naval Air Station Whiting Field, Milton, Florida

Naval Air Station Whiting Field (NASWF), in coordination with the Secretary of Navy's Renewable Energy Program Office, finalized an agreement with Gulf Power Company to construct an intermittent solar farm located on base. This farm will be one of three sites in the region that together have the potential to produce enough energy to power approximately 18,000 homes yearly. Other improvements include the installation of high-efficiency LED street and parking lot lights, the replacement of inefficient lighting fixtures in the mid-field hangar with fluorescent lighting fixtures operated by occupancy sensors and replacement of one 200-kilowatt diesel standby generator at the west water well with a 150-kilowatt natural gas standby generator.

A medication disposal container at Naval Hospital Bremerton. The program accepts consumer unused or expired prescribed controlled and non-controlled medications, such as over-the-counter dispensed medications.

Naval Hospital Bremerton, Washington

Naval Hospital Bremerton has partnered with the Stryker Corporation to collect and return Food and Drug Administration-classified "single use devices" used in the operating room instead of disposing of them as medical waste. In FY 2015 and FY 2016, almost two tons of these devices were recycled through this process, representing a cost avoidance of over $2,000 in waste disposal. These devices are reprocessed and available for sale at a 50 percent savings over new items. The hospital also recycles various non-invasive medical devices and has implemented a program to handle discarded medications. The hospital's very successful recycling program recycles everything from cooking oil to chemicals to light bulbs and sells many of the waste products to gain additional revenue.

Another NASWF innovation—a new water bottle filling station that displays the number of water bottles diverted from the solid waste stream every time someone refills a bottle.

Naval Support Activity Mechanicsburg, Pennsylvania

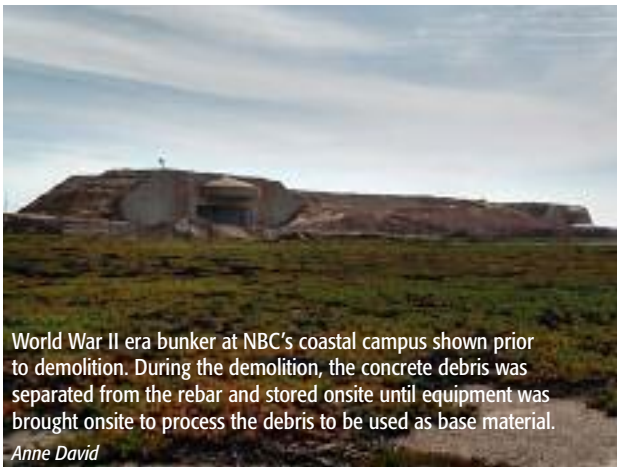
Naval Support Activity Mechanicsburg (NSA-M) has maintained a waste diversion rate of over 60 percent for the past six years and recycled over 9,500 tons of material during FY 2015-16. Their most impressive recycling feat was repurposing a demolished warehouse to build cabins at a Boy Scout camp. This single action kept over 325 tons of wood out of the landfill. Through various training activities, NSA-M reduced energy use by 7.8 percent and saved over $3 million during the award period. This exceeded the Energy Independence and Security Act of 2007 energy goal. NSA-M also converted 20 buildings from central steam to boilers and added centralized controls, reducing greenhouse gas emissions by 12 million pounds and saving $2.2 million a year.

This centralized networked control center optimizes building heating at NSA-M. In combination with new boilers, this project has resulted in a savings of $2.2 million and 12.4 million pounds of carbon dioxide per year.

Individual/Team

Naval Base Coronado, San Diego, California

Recycling has picked up impressive momentum at Naval Base Coronado (NBC) in the last two fiscal years, thanks to the efforts of the NBC Sustainable Solid Waste program team. This five-person team implemented language in contracts to ensure that waste products are recycled or composted, and participated in a food waste study conducted by the NAVFAC Engineering and Expeditionary Warfare Center (EXWC). These efforts resulted in net savings of $6,493,259 to the operations at NBC between FY 2015 and FY 2016, and increased the base's diversion rate to 55 percent, five percent over DoD goals. (See our sidebar "More Insights Into Naval Base Coronado's Win" at the end of this article.)



World War II era bunker at NBC's coastal campus shown prior to demolition. During the demolition, the concrete debris was separated from the rebar and stored onsite until equipment was brought onsite to process the debris to be used as base material.
Anne David

Naval Base Ventura County Sustainability Team, Point Mugu, California

Naval Base Ventura County's (NBVC) Environmental Management System is the fundamental mechanism for standardizing the methods and processes used to evaluate and address environment impacts across NBVC's three operating areas. The six sustainability team members work with 148 designated environmental coordinators from 61 tenant organizations and commands. This team observes, documents and audits NBVC operations and practices with potential impacts to environmental aspects. NBVC's Internal Assessment Plan ensures that all facilities/operations are evaluated, root causes for environmental noncompliance are addressed and opportunities to further sustainability and pollution prevention goals are identified.

Sand fencing at Point Mugu slows wind erosion and builds new beach dunes to protect inland infrastructure from storm events.
Valerie Vartanian

NAVSUP Fleet Logistics Center Pearl Harbor, Hawaii

The six-member environmental team at Naval Supply Systems Command Fleet Logistics Center Pearl Harbor (FLCPH) is responsible for this command's environmental programs. In FY 2015 and 2016, FLCPH executed several energy conservation and xeriscaping projects, continued efforts to minimize purchase and storage of hazardous material throughout the region, collaborated with the U.S. Environmental Protection Agency (EPA) to improve opera-

Installation of translucent panels at FLCPH's material handling equipment building reduced overall lighting energy costs and improved the work environment.

Lieutenant Junior Grade Frances Hunter

tion and maintenance of underground storage tanks, and conducted several command engagement and community outreach events. These accomplishments were achieved during a period of significant funding and personnel hiring constraints.

Environmental Restoration

This award recognizes efforts to protect human health and the environment by cleaning up identified sites in a timely, cost-efficient and responsive manner. Restoring these sites impacted by historic defense practices protects military personnel and the public from potential environmental health and safety hazards.

Installation

Naval Base Point Loma, San Diego, California

The highlight of the Naval Base Point Loma (NBPL) Installation Restoration (IR) program during the award period was the successful reduction of indoor air trichloroethylene vapors within Old Town Complex Building 3 to below the EPA 8-hour exposure allowable limits, resulting in improved air quality and reoccupation of several office spaces. The innovative remediation design was recognized by the American Academy of Environmental Engineers and Scientists who awarded NBPL their Grand Prize award in the Industrial Waste Practices category in the 2016 Excellence in Environmental Engineering and Science international competition.

St. Juliens Creek Annex, Norfolk, Virginia

In 2000, 59 potentially contaminated IR and Munitions Response sites, solid waste management units and areas of concern were identified for evaluation at St. Juliens Creek Annex. In May 2016, the Record of Decision for the final site under investigation was signed, and a preliminary closeout report was signed the following July, signifying "Construction Complete" for the facility. This designation indicates that all physical construction of all cleanup actions are complete, all immediate threats have been addressed and all long-term threats are under control for all portions of the site.

The primary vapor intrusion entry point at NBPL (shown at left) was hidden behind a wall. Floor cracks, another potential entry point for vapors, were sealed with epoxy.

A. Lind

A chemist analyzes groundwater samples in the field using a portable gas chromatograph during an investigation at IR Site 2 at St. Juliens Creek Annex. While significant contaminant reduction has occurred, the site will undergo continued remedial action and monitoring.

Kathryn Smith

Cultural Resources Management

These awards recognize efforts to promote cultural resources stewardship by highlighting outstanding examples of cultural resources management. Awards are designed to showcase extensive cultural resources including archaeological sites, the historic built environment and cultural landscapes. Desired initiatives include partnering with external stakeholders such as Native Americans, state historic preservation officers and local communities, and those working with internal stakeholders, such as master planning, public works and range management. Through cultural resources management programs, Navy and DoD identify areas likely to contain historical assets and work to protect these resources for future generations in partnership with Native American tribes and historic preservation authorities.

Small Installation

Commander, Fleet Activities Yokosuka, Japan

Fleet Activities Yokosuka (FLEACT) Yokosuka's cultural resources include 35 archeological sites registered by the Kanagawa Prefecture, 260 historic buildings and other noteworthy monuments and infrastructure. During the reporting period, a new Historic Context and Inventory Report was compiled, evaluating each building and structure and assigning them a preservation rating of A through D. This rating system, which began in 2003, was introduced to other naval bases and is being utilized for most U.S. military bases in Japan. The Yokosuka Board of Education and NAVFAC Pacific assisted with this project, saving approximately $20,000.

U.S. Forces Japan environmental subcommittee members tour the historic Yokosuka Dry Dock 1. Dry Dock 1 was recognized by the Japan Heritage program as an historic site. Completed in 1871, it is the oldest stone dry dock in Japan.
Izumi Morine

Naval Air Station Pensacola, Florida

With more than 25 percent of the buildings managed by NAS Pensacola determined eligible for or listed in the National Register of Historic Places, collaboration is crucial, and the Public Works Department is constantly planning for consultation. The Cultural Resources Manager (CRM) works on hundreds of cultural resources considerations a year, from large-scale design and construction projects to small renovations. Just one accomplishment during the awards period was the completion of a floating port security barrier (PSB). The construction of the PSB was completed on schedule despite the presence of a sunken caisson (circa 1830) discovered during dredging operations.

Ms. Carrie Williams, NAS Pensacola's CRM, reaches into a display case filled with old survey and engineering equipment and other historic artifacts. The case promotes cultural resources awareness and stewardship.

Norfolk Naval Shipyard, Virginia

Over the years, Norfolk Naval Shipyard (NNSY) has surveyed 77 percent of the installation and identified 18 architectural evaluations. During the award period, NNSY captured Geographic Information Systems data identifying new archaeological sites that require further investigations, developed a one-hour driving tour highlighting significant resources and held multiple cultural resource training sessions. Personnel also completed a comprehensive photographic archival study at the National Archives and Records Administration. This will streamline State Historic Preservation Office consultations, reduce the need for archaeological surveys and save the Navy time and money.

First constructed in 1835, NNSY's Building 3 is one of the oldest structures constructed by the Navy.

Individual/Team

Ms. Carrie A. Williams of NAS Pensacola, Florida

Ms. Williams is the Cultural Resources Manager for NAS Pensacola. Employed in 2010, she was the first full-time Secretary of the Interior-qualified archaeologist to manage installation cultural resources in Navy Region Southeast. Ms. Williams single-handedly manages the cultural resources program at NAS Pensacola which encompasses over 8,000 acres. NAS Pensacola implemented its first official Integrated Cultural Resources Management Plan (ICRMP) under Ms. Williams, who received support from the NAS Pensacola Commanding Officer, the Florida State Historic Preservation Officer (SHPO), and federally recognized tribes. Just one of her recent accomplishments is her consultation efforts with the SHPO which resulted in a No Significant Impact designation for a new solar facility on disused NAS Pensacola lands.

Carrie Williams discusses the ICRMP with Jon Hill, Executive Director of the Pensacola Lighthouse and Museum. Built in 1859, the lighthouse is a public use resource on the base.

Ms. Kerry A. Vautrot of Portsmouth Naval Shipyard, Maine

In May 2011, Ms. Vautrot became the first full-time Cultural Resources Manager for the Portsmouth Naval Shipyard (PNSY) Public Works Department. Her area of responsibility includes 19 Navy installations and reserve centers occupying more than 16,200 acres of land within six states across the Northeast. Ms. Vautrot is responsible for the management and implementation of three ICRMPs for Navy installations in Maine. A fourth ICRMP is also under development for NSA Prospect Harbor. These ICRMPs outline management for 246 historic buildings, five historic districts, 12 contributing landscape features and 26 known archaeological sites.

The Portsmouth Naval Cemetery is a small burial ground with 186 stones dating back to the 1820's. The cemetery is a contributing resource to the Portsmouth Naval Shipyard Historic District.

Naval Air Weapons Station China Lake Cultural Resource Team, California

Located in the Mojave Desert and spanning 1.2 million acres, Naval Air Weapons Station (NAWS) China Lake represents 34 percent of the Navy's land holdings worldwide.

April Halpin stands beside anthropomorphic figures located within Coso Petroglyph National Historic Landmark onboard NAWS China Lake. The largest figure stands over five feet tall.

Mike Baskerville

At least 95 percent of this land been left undisturbed, and it is home to the largest collections and concentrations of Native American rock art in the Western Hemisphere. During the awards period, the cultural resources team inventoried over 57,901 acres (nearly five percent of total land area). Most notable was a demonstration project that recorded 200 meters of Little Petroglyph Canyon. The project demonstrated that with modern technology such as photogeometry, GPS base stations and drones, such sites can be recorded in months instead of years.

Environmental Planning

The purpose of this award is to recognize outstanding environmental planning for the Navy.

Ice Exercise (ICEX) 2016 Environmental Planning Team, Norfolk, Virginia

The Navy's Ice Exercise (ICEX) is a biennial exercise conducted above the Arctic Circle in cooperation with other branches of the military, government agencies, academic institutions and others. ICEX provides submarines the opportunity to train in an operationally demanding environment. Coordinating this event in such an environmentally sensitive area requires a diverse group of talents, and the environmental planning team rose to the challenge in 2016, successfully integrating operational and environmental planning processes. This year, new and more environmentally sustainable materials, designs and processes were researched and evaluated, resulting in a reduced environmental footprint and a finding of No Significant Harm from the U.S. Fleet Forces Command. The significant achievements of this team will lead the way for future success in this important frontier for the Navy.

Mariana Islands Training and Testing Environmental Impact Statement Team, Pearl Harbor, Hawaii

The Navy's ability to train and test in the Mariana Islands Range Complex (MIRC) relied on existing authorizations issued under the Marine Mammal Protection Act and Endangered Species Act (ESA), which were due to expire in 2015. To ensure that operations could continue uninterrupted, the Mariana Islands Training and Testing Environmental Impact Statement team was formed. This multi-service and multi-organizational team faced a task that was challenging due to the geographic scope and ecological diversity of the study area and the complex historical, political and cultural relationships involved. The team proved to be adept at responding to emergent issues, such as incorporating newly listed ESA species, addressing public concerns (e.g., fishing access) and reducing public and local governmental confusion over multiple ongoing major DoD National Environmental Policy Act efforts in the Marianas. Through strong and dedicated leadership and cooperation among the diverse team, the EIS was completed with all permits and authorizations received on time.

Ice Camp Sargo hosted more than 200 participants from four nations and tested a variety of shelter, flooring and heating options with an eye towards reducing the environmental impact of future ICEXs.

MC2 Tyler Thompson

The MIRC includes at-sea ranges, operating areas, special use airspace and land-based training areas on Guam (shown) and the Commonwealth of the Northern Mariana Islands.

MCS Joan E. Jennings

Transit Protection System Port Angeles Environmental Assessment Project Team, Bremerton, Washington

A multi-disciplinary team of experts was assembled to complete an environmental assessment for the construction of a staging location for Transit Protection System vessels and crews that escort Navy submarines from Naval Base Kitsap Bangor to and from their dive/surface locations. The team's first challenge was addressing the public's concern about perceived increasing Navy presence in the Pacific Northwest, as well as the loss of an aquaculture facility and a recreational diving location. Early on, the team conducted outreach in the Port Angeles community to engage with these stakeholders in meaningful discussion throughout the planning process. This public and tribal engagement led to the development of a new alternative, which later became the alternative chosen in the Finding of No Significant Impact document, which was signed on schedule in August 2016.

Mitigation for construction of the Transit Protection System pier and support facilities will include restoration of portions of the adjacent Ediz Hook shoreline to natural conditions. The mitigation will also include the removal of this derelict structure being undermined by frequent storm surges.

Afloat

This category includes five competitive sub-categories; however, no entries were received in the Littoral or Amphibious Warfare category.

Surface Combatant: USS Monterey (CG 61)

USS Monterey is a guided missile cruiser, homeported in Norfolk, Virginia with 341 enlisted men and 48 officers onboard. During the awards period, Monterey undertook many measures to ensure complete compliance with all environmental regulations. Some of CG 61's accomplishments include the onloading of four million gallons of fuel without a spill, a complete overhaul of the ship's oily waste system to ensure the environmentally friendly storage and conditioning of oily waste and the use of fuel burn graphs to inform engineers of optimal speeds for saving fuel. Perhaps most important is the emphasis on effective and repeated training for all crew in energy efficiency and waste management practices.

Petty Officer 3rd Class Kevin Foy performs preventative maintenance on the gas turbine engine aboard USS Monterey. Engineers take great care to minimize exhaust through the effective use of pre-filters, coalescers and purifiers.
Petty Officer 2nd Class William Jenkins

Large Deck Combatant: USS Harry Truman (CVN 75)

Harry S. Truman is an aircraft carrier homeported in Norfolk, Virginia. Truman's crew total 3,032 with an additional 1,969 personnel embarked from CSG-8, Carrier Air Wing Seven, and Destroyer Squadron Two Eight. Truman had many notable accomplishments during the awards period including the upgrade of 80 percent of the ship's plastic waste processors. These

An MH-60S Sea Hawk helicopter performs a replenishment-at-sea with USS Harry S. Truman. The ship had zero environmental spills during the reporting period.
MCS3 Anthony Flynn

processors melt plastic waste products for proper disposal. The crew also excelled at the safe handling of hazardous waste, in particular isocyante-containing polyurethane paints for aircraft. With 69 aircraft on board, approximately 750 evolutions using this hazardous paint were conducted over the course of deployment with no incident to personnel or the environment.

USS Virginia returns to homeport after completing a 14-week surge deployment.
MCS1 Jason J. Perry

Submarine: USS Virginia (SSN 774)

USS Virginia is tasked with anti-submarine warfare. Currently homeported in Groton, Connecticut, USS Virginia has a crew of 148. Energy conservation is deeply embedded in ship operations, driven from the command leadership and enforced by the entire crew. Upon entering to port, all unnecessary electrical loads are secured and lighting is reduced to the minimum necessary to sustain a safe operational environment. Diesel generator operations are limited to minimum essential requirements to reduce overall fossil fuel consumption. All plastics are retained onboard and taken to a recycling facility when ashore. All oily waste is also stored until it can be properly transferred to an off-hull collection facility when in port. Finally, every effort is made to procure environmentally sustainable products onboard, including laundry detergents and cleaning chemicals.

Military Sealift Command: USS Emory S. Land (AS 39)

USS Emory S. Land (ESL) is a submarine tender with a hybrid crew of 751 Sailors and civilian mariners. Homeported in Guam, ESL completed maintenance work on 15 submarines and 17 surface ships in FY 2016. Because of its workload, ESL generates a large amount of waste oil—a total of 150,000 gallons during this period. This oil is processed by an oily waste separator, set at 15 parts per million, which,

More Insights Into Naval Base Coronado's Win

PART OF NBC'S recycling success can be attributed to its participation in a food waste study undertaken by NAVFAC Engineering and Expeditionary Warfare Center (EXWC) engineers. This study was funded by the Navy Environmental Sustainability Development to Integration (NESDI) program.

The eight-month study reviewed the common practices being used for separating food wastes from the solid waste stream at NBC and nearby NAS North Island. The goals were to identify current practices and to devise ways to meet the DoD goals of diverting at least 50 percent of non-hazardous solid waste from landfills by the end of FY 2015.

At NBC, the experience allowed the galleys to reduce waste being generated and further streamline their process for food preparation. By separating their food waste, weighing each container and logging the weights prior to disposal in outdoor containers, workers could better visualize the waste being generated. NBC began composting food waste in January 2016, after training from the City of San Diego. At the beginning of the NESDI-sponsored study, the NBC galley was composting over 10 tons a month. Now, due to waste reduction techniques, they are composting less than 7 tons a month. In addition, the compost is being offered to residents of San Diego for use as topsoil. The reduction in food waste saved the NBC galleys $40,000 in FY 2016.

The information gathered from this study is being used to develop and implement food waste composting throughout the Navy. At the beginning of this project, only about 15 percent of Navy installations that generate one or more tons of solid waste per day were composting materials, usually green waste. Only two or three of these installations were incorporating food waste in the compost operation. With the development of an updated guidance document, NAVFAC EXWC expects that at least half of these installations will begin to incorporate food diversion.

The NESDI program's mission is to demonstrate, validate and integrate innovative technologies, processes and materials and fill knowledge gaps to minimize operational environmental risks, constraints and costs while ensuring Fleet readiness.

Food waste.
Jill Hamilton

For more information about the NESDI program and this project, visit https://epl.navfac.navy.mil/nesdi and search for project 478. (A Common Access Card is required for access.)

ESL provides maintenance, hotel services and logistical support to submarines and surface ships in the U.S. 5th and 7th Fleet areas of operations.
MCS3 Daniel Willoughby

along with close supervision from the chief engineer, resulted in zero spills during this period. Among other accomplishments, the Radiological Controls division conducted numerous transfers of radioactive material without incident. Solid waste management is state of the art, with onboard paper pulpers, glass and metal shredders and plastic waste compressors that process waste onboard.

For more information about the CNO Environmental Awards program, visit http://greenfleet.dodlive.mil/environment/awards. ⚓

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